

**Planning Advisory Committee  
Doubletree Hotel, Westborough, MA  
September 21, 2016**

Eric Annes	Connecticut DEEP
Dwayne Basler	Eversource Energy
Sonia Barrera	ISO New England Inc.
Denis Bergeron	Maine Public Utilities Commission
Peter Bernard	ISO New England Inc.
Marcia Blomberg	ISO New England Inc.
Dave Bradt	United Illuminating Company
Jon Breard	ISO New England Inc.
John Brodbeck	Marble River
Scott Brown	NB Power
David Burnham	Eversource Energy
Stephen Capozzi	Connecticut PURA
Dorothy Capra	NESCOE
Ken Colson	AVANGRID
Rick Conant	RLC Engineering
Ray Coxe	Mosaic Energy Insights for Brookfield
Ben D'Antonio	NESCOE
Suresh Dave	TDI
Jim Davis	Dominion
Stacy Dimou	Emera Maine
Vandan Divatia	Eversource Energy
Mike Drzewianowski	ISO New England Inc.
Paul Dumais	Central Maine Power Company
Frank Ettori	Vermont Electric Power Company
Jeff Fenn	Emera Maine
Lisa Fink	Maine PUC
Brian Forshaw	CMEEC
Steve Garwood	New Hampshire Transmission
Don Gates	ISO New England Inc.
Mike Giamo	ISO New England Inc.
Monica Gonzalez	ISO New England Inc.
Mike Henderson	ISO New England Inc.
Jeff Iafrati	Customized Energy Solutions
Sarah Jackson	Synapse Energy Economics
Eric Jacobi	FERC
Steve Judd	Burns & McDonnell
Tom Kaslow	First Light Power Resources
John Keene	First Wind/SunEdison
Bill Killgoar	LIPA
Steve Kirk	Exelon
Manasa Kotha	ISO New England Inc.
Rich Kowalski	ISO New England Inc.
Abby Krich	Boreas Renewables
Marc Lyons	ISO New England Inc.
Tim Martin	New England Power Company
George McCluskey	New Hampshire Public Utilities Commission
Bruce McKinnon	CMEEC
Ed McNamara	Vermont Department of Public Service

Mary Menino	Massachusetts Department of Public Utilities
Chris Morin	Central Maine Power Company
John Moskal	U.S. EPA
Susan Muller	Bores Renewables
Brent Oberlin	ISO New England Inc.
Bill Opalka	RTO Insider
Marianne Perben	ISO New England Inc.
Carlos Perez-Perez	New England Power Company
Paul Peterson	Synapse
Dan Phelan	New Hampshire Public Utilities Commission
Rich Pinto	United Illuminating
Fred Plett	Massachusetts Attorney General Office
Hantz Presume	Vermont Electric Power Company
Francis Pullaro	Renew
MQ Riding	Essential Power
Matthew Robinson	RLC Engineering
Brian Roche	Groton Utilities
Alex Rost	ISO New England Inc.
Jose Rotger	Emera Energy
Steve Rourke	ISO New England
Eric Runge	Day Pitney
Bob Russo	Eversource Energy
Cameron Schultz	ISO New England
Patricio Silva	ISO New England Inc.
Bob Stein	HQUS/PSEG/NRG/Footprint
Gabe Stern	CMEEC
Brian Thomson	Massachusetts Wholesale Electric Company
Alan Trotta	AVANGRID
Pradip Vijayan	ISO New England
Greg Wade	ISO New England Inc.
Helen Wang	ISO New England Inc.
Wayne Whittier	RLC Engineering

### **Item 1 – Chair’s Remarks**

Mr. Don Gates welcomed the committee and reviewed the day’s agenda. Mr. Steve Rourke (ISO) announced that Mr. Gates will be retiring from ISO at the end of 2016. Mr. Peter Bernard will be assuming Mr. Gates position as chair of the PAC effective in October 2016.

Mr. Gates reminded the committee that the annual TOPAC LSP presentations have been scheduled for the afternoon of October 20, 2016.

### **Item 2.0 – UI Coastal Substation Flood Mitigation Study**

Mr. David Bradt (UI) provided an overview of the UI Coastal Substation Flood Mitigation Study.

*Q - Will the plan to rebuild the Pequannock on an adjacent site be at risk for sinking as well?*

*A – We would construct the adjacent site to eliminate that possibility.*

*Comment – ISO is looking for feedback on the UI plan.*

*Q - What was the cost differential between the Singer GIS substation and the Proposed Pequannock GIS substation.*

A – The cost of the Singer station was roughly \$130M. The cost differential is due to the compact location of Pequannock and the nature of the transmission work at the site.

*Q - Are you replacing both the switches and motors as part of the East Shore solutions in addition to raising them?*

A – Yes, that was the plan.

*Comment – The Maine PUC supports the UI plan regarding the asset condition issue at Pequannock, but we have reservations regarding the asset condition issues at the other UI substation locations. Further discussion is needed on what constitutes an asset conditions issue and determining the risk that there will be a catastrophic event that would justify the large cost expenditures to mitigate the risk.*

*Comment – The Mass AG supports the UI proposal of erecting flood walls around the at risk substations.*

### **Item 3.0 – Maine Resource Integration Study**

Ms. Marianne Perben (ISO) and Mr. Al McBride (ISO) provided an overview of the Maine Resource Integration Study.

*Q – Regarding the dispatch case studied, I disagree with the amount of energy on a peak load test. In particular, the wind amounts at peak load are typically minimal.*

A – The stresses and cases are typical for studying as part of an interconnection process study, so we need to see if they could interconnect at max output.

*Q - Why are the transfer limits higher than previously stated in other ISO studies?*

A – The values shown are the true, raw interface limits without taking into account issues such as stability.

*Q - Have you modeled the SPSs in the area?*

A – I don't believe the limiting contingencies would trigger the SPSs. We can double check that.

*Q – Why did you stop at a 992 MW injection on slide 8?*

A – We made a decision to not to exceed a 1000 MW injection and the upgrades required to reach that value as part of this study.

*Q – Have you considered a hybrid between Options 3 & 4?*

A – We can take that back for consideration.

*Q – When do you anticipate providing costs estimates for the various options?*

A – As part of the final results presentation at the end of 2016.

*Q - Are there any plans to perform high voltage overload testing?*

A – We will take that back for discussion.

### **Item 4.0 – Eastern Connecticut 2022 Solution Study Update**

Mr. Jon Breard (ISO) provided an overview of the Eastern Connecticut 2022 Solution Study Update.

*Q – On slide 20, there is something unfinished with the line.*

A – That is non-PTF but we are still looking at that to see if we should upgrade that.

### **Item 5.0 – Planning Process Guide Update**

Mr. Michael Drzewianowski (ISO) provided an overview of the Planning Process Guide Update.

*Q – Can you describe what changes you are making to the Asset Conditions List?*

A – We are identifying the different types of projects, RSP, Asset Conditions, and a new category called Competitive Process.

### **Item 6.0 – Keene Road Market Efficiency Transmission Upgrade (METU)**

Mr. Mike Henderson (ISO) provided an overview of the Keene Road METU proposal.

*Q - How is this meshing with the Maine Integration Study?*

A – This is a very specific needs assessment project for Market Efficiency upgrades. The Maine Integration Study is a conceptual study on possible ways to integrate bottled in Maine wind and getting that energy to the southern load pockets.

*Q - What is the cut off day for the Interconnection Agreements?*

A - It is listed later in the presentation.

*Q - Regarding the air emissions costs, is that part of the production costs?*

A - They are.

*Q - Is the modeling of the battery storage different from the modeling of the pump storage?*

A - The efficiency is higher with the battery storage at roughly 75%.

*Q - Will “energy only” resources part of this study?*

A - They are.

*Comment – I would like to see rate payer savings benefits in addition to production cost benefits.*

*Comment - Is it possible to perform an additional study that would include negative market pricing?*

*Comment – We should be using a more recent load shape than the 2006 version being used.*

A – We are looking into using a more current load shape. However, 2006 is a good year to use due to the variability of heat waves and cold snaps.

### **Item 7.0 – 2016 Economic Study Update – Draft Results - Continued**

Mr. Mike Henderson provided an overview of the 2016 Economic Study Draft Results.

*Comment – We should have a metric on the costs of reserves in the various scenarios.*

A – That will be addressed in Phase II of the study.

*Comment – Could you add two sensitivities for capacity factor for peaking units and energy by source for summer and winter peaks?*

A – We can add those in as additional sensitivities.

*Q – Will you be including the new tie lines as part of the asynchronous resources?*

A – Yes, the ties will be included in addition to the solar and wind resources.

*Q – What is the assumption on gas supply for the combined cycles?*

A – Gas was available on demand but the costs are higher in the winter.

Planning Advisory Committee meeting adjourned at 4:00 PM

Respectively submitted

Marc Lyons  
Secretary, Planning Advisory Committee